STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 145987

TO: Kahsay Habte Location: rem/5c18/5c15 Art Unit: 1624 Monday, March 07, 2005 Case Serial Number: 10/715226	From: Alex Waclawiw Location: Biotech-Chem Library Rem 1A71 Phone: 272-2534 Alexandra.waclawiw@uspto.gov

Search Notes

Access DB# 145981

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Kahsay Habte Examiner #: 78271 Date: 2/23/05

Art Unit: 1624 Phone Number ~~31~~ 2-0667 Serial Number: 10/715,226

Mail Box and Bldg/Room Location: 5C-18 5015 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search the processes in claims 1-7

(A method for synthesizing [7-(dipropylamino)phenothiazin 3-ylidene] dipropylamine)

See attached for more info.

****

STAFF USE ONLY

Searcher: _____ Point of Contact: Alexandra Waclawiw Technical Info. Specialist

Searcher Phone: _____ CM1 6A02 Tel: 308-4491

Type of Search

NA Sequence (#)_____

AA Sequence (#)_____

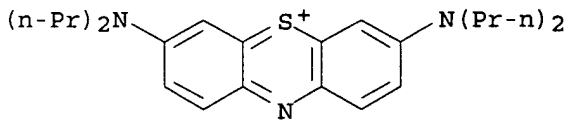
Vendors and cost where applicable

STN 1.239

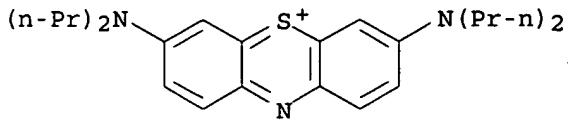
Dialog _____

```
=> d his

     (FILE 'REGISTRY' ENTERED AT 12:59:06 ON 07 MAR 2005)
                  DEL HIS Y
L1             3 S 2508.272/RID AND C24H34N3S
                  SAVE L1 TEMP HABTE/A
L2             1 S 261-89-2
                  E DIPROPLYAMINE
                  E DIPROPLYAMINE/CN
L3         20039 S C6H15N
L4           125 S L3 AND DIPROPYL
L5             1 S 142-84-7

     FILE 'CAPLUS' ENTERED AT 13:05:36 ON 07 MAR 2005
L6             4 S L1
L7            10 S L2/D
```

```
=> fil reg
FILE 'REGISTRY' ENTERED AT 13:06:53 ON 07 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 MAR 2005  HIGHEST RN 842949-55-7
DICTIONARY FILE UPDATES:   4 MAR 2005  HIGHEST RN 842949-55-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d que l1
L1            3 SEA FILE=REGISTRY ABB=ON  PLU=ON  2508.272/RID AND C24H34N3S


=> d l1 1-4

L1   ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   747403-52-7  REGISTRY
CN   Phenothiazin-5-ium, 3,7-bis(dipropylamino)- (9CI)  (CA INDEX NAME)
FS   3D CONCORD
MF   C24 H34 N3 S
CI   COM
SR   CA
```



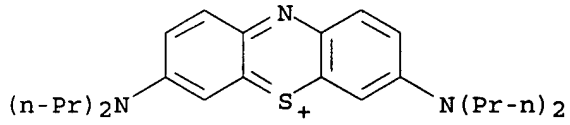

```
L1   ANSWER 2 OF 3  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   439119-95-6  REGISTRY
CN   Phenothiazin-5-ium, 3,7-bis(dipropylamino)-, iodide (9CI)  (CA INDEX NAME)
MF   C24 H34 N3 S . I
SR   CA
LC   STN Files:   CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA  CAplus document type:  Journal; Patent
RL.P   Roles from patents:  BIOL (Biological study); PRP (Properties); USES
       (Uses)
RL.NP  Roles from non-patents:  BIOL (Biological study); PREP (Preparation);
       PRP (Properties); USES (Uses)
CRN  (747403-52-7)
```



● I⁻

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2005 ACS on STN
RN 119150-13-9 REGISTRY
CN 3H-Phenothiazine, 7-dipropylamino-3-propylimino-, propochloride (6CI) (CA INDEX NAME)
MF **C24 H34 N3 S . Cl**
SR CAOLD
LC STN Files: CA, CAOLD, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: NORL (No role in record)
CRN (747403-52-7)



● Cl⁻

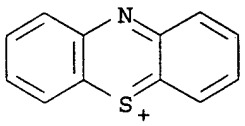
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d que l2
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON 261-89-2

=> d l2

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN **261-89-2** REGISTRY
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Phenazathionium
CN Phenothiazinium
FS 3D CONCORD
MF C12 H8 N S
CI COM, RPS
LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAPLUS, TOXCENTER,

USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: FORM (Formation, nonpreparative); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); USES (Uses)



16 REFERENCES IN FILE CA (1907 TO DATE)
10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
16 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil caplus
FILE 'CAPLUS' ENTERED AT 13:07:14 ON 07 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 7 Mar 2005 VOL 142 ISS 11
FILE LAST UPDATED: 6 Mar 2005 (20050306/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

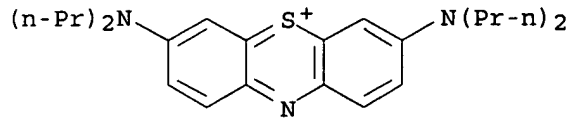
=> d que l6
L1 3 SEA FILE=REGISTRY ABB=ON PLU=ON 2508.272/RID AND C24H34N3S
L6 4 SEA FILE=CAPLUS ABB=ON PLU=ON L1

=> d que l7
L2 1 SEA FILE=REGISTRY ABB=ON PLU=ON 261-89-2
L7 10 SEA FILE=CAPLUS ABB=ON PLU=ON L2/D

```
=> d l6 .ca hitstr l6 1-4;d .ca hitstr l7 1-10
L6 IS NOT VALID HERE

COMMAND STACK INTERRUPTED.  ENTER "DISPLAY HISTORY"
TO SEE WHICH COMMANDS WERE EXECUTED.

=> d l6 .ca hitstr 1-4;d .ca hitstr l7 1-10

L6   ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:538494  CAPLUS
DOCUMENT NUMBER:          142:70826
TITLE:                    A comparative analysis of phenothiazinium salts for
                          the photosensitisation of murine fibrosarcoma (RIF-1)
                          cells in vitro
AUTHOR(S):                Walker, Ian; Gorman, Stephen A.; Cox, Russell D.;
                          Vernon, David I.; Griffiths, John; Brown, Stanley B.
CORPORATE SOURCE:         Centre for Photobiology and Photodynamic Therapy,
                          School of Biochemistry and Molecular Biology, Leeds,
                          LS2 9JT, UK
SOURCE:                   Photochemical & Photobiological Sciences (2004), 3(7),
                          653-659
                          CODEN: PPSHCB; ISSN: 1474-905X
PUBLISHER:                Royal Society of Chemistry
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
ED   Entered STN:  06 Jul 2004
AB   Photodynamic therapy (PDT) is a treatment combining a photosensitizer,
     mol. oxygen and visible light of characteristic wavelength to produce
     cytotoxic reactive oxygen species (ROS).  Within our center, a series of
     phenothiazinium salts were synthesized and initial characterization
     studies performed to determine any potential use for PDT.  All photosensitizers
     within the series were shown to have useful spectral properties for PDT,
     with absorbance λmax above 667 nm.  The Log P values of the compds.
     were shown to range from -0.9 to > +2.0.  Furthermore, Log P values were
     shown to be important in determining the site of subcellular localization and
as
     such the site of photooxidative damage.  Derivs. with a Log P value of
     greater than +1.0 were shown to initially localize to the lysosomes then
     relocalize throughout the cytoplasm following illumination, whereas
     compds. with intermediate Log P values (-0.7 to +1.0) all remained
     lysosomal.  Only methylene blue (Log P -0.9) was shown to redistribute to
     the nucleus upon illumination.  Following treatment of RIF-1 cells with
     each phenothiazinium salt for 1 h and subsequent exposure to 665 nm laser
     light at a fluence rate of 10 mW cm-2 (18 J cm-2), it was determined that the
     most potent photosensitizer was 260-fold more potent than methylene blue.
     Furthermore, the PDT efficacy of the photosensitizers was shown to be
     related to the level of mitochondrial damage induced directly following
     illumination.
CC   8-9 (Radiation Biochemistry)
IT   61-73-4, Methylene blue 439119-95-6   813463-01-3   813463-02-4
     813463-03-5   813463-04-6   813463-05-7   813463-06-8   813463-07-9
     813463-08-0
     RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT
     (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (comparative anal. of phenothiazinium salts for photosensitization of
        fibrosarcoma)
IT   439119-95-6
```

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(comparative anal. of phenothiazinium salts for photosensitization of fibrosarcoma)

RN 439119-95-6 CAPLUS
CN Phenothiazin-5-ium, 3,7-bis(dipropylamino)-, iodide (9CI) (CA INDEX NAME)



● I^-

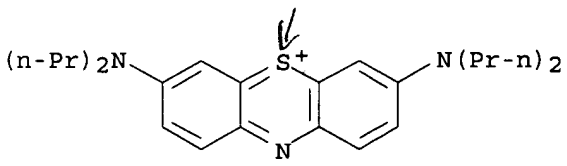
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:927420 CAPLUS
DOCUMENT NUMBER: 138:16590
TITLE: Biologically active methylene blue derivatives
INVENTOR(S): Brown, Stanley Beames; O'Grady, Cassandra Claire; Griffiths, John; Mellish, Kirste Joanne; Tunstall, Richard George; Roberts, David John Howard; Vernon, David Ian
PATENT ASSIGNEE(S): Photopharmica Limited, UK
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002096896	A1	20021205	WO 2002-GB2278	20020530
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
NZ 529682	A	20031219	NZ 2002-529682	20020530
EP 1392666	A1	20040303	EP 2002-726300	20020530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002009783	A	20040420	BR 2002-9783	20020530
JP 2005500271	T2	20050106	JP 2003-500075	20020530
US 2004147508	A1	20040729	US 2003-723420	20031126
PRIORITY APPLN. INFO.:			GB 2001-13121 A	20010530

GB 2001-23945 A 20011005
WO 2002-GB2278 W 20020530

OTHER SOURCE(S): MARPAT 138:16590
ED Entered STN: 06 Dec 2002
AB This invention relates to biol. active photosensitizers which are strongly photocytotoxic and have application in the areas of photodynamic therapy, as well as for the diagnosis and detection of medical conditions, in the treatment of microbial infections, in photodisinfection and photosterilization. The examples provided are of methylene blue and its Et, Pr, Bu, pentyl and hexyl analogs. The latter compds. have antimicrobial and antitumor activity. Methylene blue analogs are suitable for inclusion in polymers such as cellulose triacetate, for adsorption on polymer surfaces, and for covalent attachment to polymer substrates. The analogs and derivs. are also suitable for use on medical devices and in food processing.
IC ICM C07D279-18
ICS A61K031-5415; A61P035-00; A61P031-04
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 8, 10, 17
IT 61-73-4, Methylene blue 58083-81-1, Ethylene blue **439119-95-6**
439119-96-7 439119-97-8 439119-98-9
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methylene blue derivs. and analogs as photosensitizers in photodynamic therapy and photodisinfection)
IT **439119-95-6**
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methylene blue derivs. and analogs as photosensitizers in photodynamic therapy and photodisinfection)
RN 439119-95-6 CAPLUS
CN Phenothiazin-5-ium, 3,7-bis(dipropylamino)-, iodide (9CI) (CA INDEX NAME)



● I-

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:322672 CAPLUS
DOCUMENT NUMBER: 137:59603
TITLE: In vitro photodynamic activity of a series of methylene blue analogues
AUTHOR(S): Mellish, Kirste J.; Cox, Russell D.; Vernon, David I.; Griffiths, John; Brown, Stanley B.
CORPORATE SOURCE: School of Biochemistry and Molecular Biology, Centre for Photobiology and Photodynamic Therapy, University of Leeds, Leeds, LS2 9JT, UK

SOURCE: Photochemistry and Photobiology (2002), 75(4), 392-397
CODEN: PHCBAP; ISSN: 0031-8655
PUBLISHER: American Society for Photobiology
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 01 May 2002

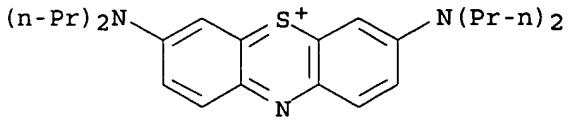
AB We have synthesized a series of sym. phenothiazines in which the Me groups of methylene blue have been substituted by longer alkyl chains. Intrinsic photosensitizing ability was not altered by increasing the chain length. However, in vitro phototoxicity after 2 h incubation of RIF-1 murine fibrosarcoma cells followed the order Pr > n-pentyl > Bu > n-hexyl > Et > Me, with Et and Pr analogs being 14- and 130-fold more phototoxic than methylene blue, resp. All analogs also had an improved ratio of phototoxicity: dark toxicity (4:1 to 27:1) compared with methylene blue (3:1). Phototoxicity did not correlate with cellular phenothiazine levels, suggesting that the site of subcellular localization may be more important. After 2 h incubation of RIF-1 cells with the phototoxicity LD50 concentration, methylene blue and all analogs were observed to be localized in the lysosomes by fluorescence microscopy. On exposure to light, methylene blue relocalized to the nucleus, the Et analog did not relocalize, whereas the more phototoxic n-Pr-n-hexyl analogs relocalized to the mitochondria. Relocalization to the mitochondria was associated with an octanol: buffer partition coefficient ≥ 1. Therefore, the longer-chain analogs of methylene blue show significantly improved phototoxicity in vitro and, in addition, are expected to avoid the problems of mutagenicity associated with the nuclear localization of methylene blue.

CC 8-9 (Radiation Biochemistry)
Section cross-reference(s): 28

IT 439119-93-4P **439119-95-6P** 439119-96-7P 439119-97-8P
439119-98-9P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in vitro photodynamic activity of methylene blue analogs)

IT **439119-95-6P**
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(in vitro photodynamic activity of methylene blue analogs)

RN 439119-95-6 CAPLUS
CN Phenothiazin-5-ium, 3,7-bis(dipropylamino)-, iodide (9CI) (CA INDEX NAME)

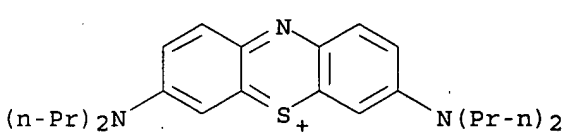


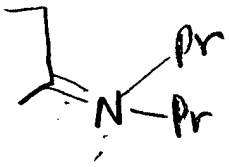
● I⁻

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1961:28332 CAPLUS
DOCUMENT NUMBER: 55:28332
ORIGINAL REFERENCE NO.: 55:5633e-g
TITLE: Chromatographic separation and isolation of metachromatic thiazine dyes
AUTHOR(S): Taylor, Kenneth B.
CORPORATE SOURCE: Univ. Bristol, UK
SOURCE: Journal of Histochemistry and Cytochemistry (1960), 8, 248-57
CODEN: JHCYAS; ISSN: 0022-1554
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
ED Entered STN: 22 Apr 2001
AB Methods were given for the chromatographic separation of 22 N-alkylthionines together with Rf equivs. and absorption maximum Alkyl groups were Me, Et, Pr, or combinations thereof. Com. prepns. of the Azure dyes A, B, and C were each separated into methylene blue, tri-, di-, and monomethylthionine fractions. Wright's and Leishman's stains were separated into the above fractions plus methylene violet.
CC 11B (Biological Chemistry: Methods)
IT 61-73-4, Methylene blue 2391-29-9, 3H-Phenothiazine, 7-dimethylamino-3-(ethylimino)-, ethochloride 98363-53-2, 3H-Phenothiazine, 7-dimethylamino-3-(ethylimino)-, methochloride 108602-20-6, 3H-Phenothiazine, 7-diethylamino-3-(ethylimino)-, ethochloride 109475-90-3, 3H-Phenothiazine, 7-ethylamino-3-methylimino-, methochloride 110489-30-0, 3H-Phenothiazine, 3-(ethylimino)-7-(ethylmethylamino)-, ethochloride 111415-23-7, 3H-Phenothiazine, 3-(ethylimino)-7-(ethylmethylamino)-, methochloride **119150-13-9**, 3H-Phenothiazine, 7-dipropylamino-3-propylimino-, propochloride
(separation of)
IT **119150-13-9**, 3H-Phenothiazine, 7-dipropylamino-3-propylimino-, propochloride
(separation of)
RN 119150-13-9 CAPLUS
CN 3H-Phenothiazine, 7-dipropylamino-3-propylimino-, propochloride (6CI) (CA INDEX NAME)





● Cl⁻

THE ESTIMATED COST FOR THIS REQUEST IS 52.60 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L7 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:1007251 CAPLUS
DOCUMENT NUMBER: 140:50342
TITLE: Materials for optical medium copy-protection transiently reacting to a reader beam of optical disk

INVENTOR(S): Selinfreund, Richard H.; Gerber, Scott; Goyette, Donald R.; Colandreo, Michael; Vig, Rakesh; Li, Junzhong; Cook, Ewell; Turner, Tomeko
PATENT ASSIGNEE(S): Verification Technologies, Inc., USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003107331	A1	20031224	WO 2003-US11975	20030417
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004121262	A1	20040624	US 2003-672052	20030926
WO 2004029672	A3	20050127	WO 2003-US30897	20030926
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:		
US 2002-389223P	P	20020617
US 2002-390647P	P	20020621
US 2002-391773P	P	20020625
US 2002-391857P	P	20020626
US 2002-393397P	P	20020702
US 2002-413934P	P	20020926

ED Entered STN: 26 Dec 2003

AB The invention relates to a method and system for providing copy-protected optical medium using transient optical state change security materials capable of changing optical state and software code to detect such change in optical state. The material protects stored information from copied by a conventional optical medium reader.

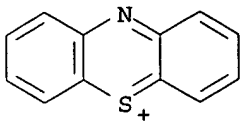
IC ICM G11B007-00
ICS B29D011-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

IT 109-77-3P, Malononitrile **261-89-2DP**, Phenothiazin-5-ium, tetraiodide salt 3484-22-8P 636602-79-4P 636602-80-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(copy protection dye of materials for optical medium)

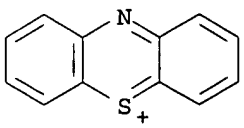
IT **261-89-2DP**, Phenothiazin-5-ium, tetraiodide salt
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(copy protection dye of materials for optical medium)
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:595119 CAPLUS
DOCUMENT NUMBER: 140:317129
TITLE: Phenothiazinium-based photosensitizers: antibacterials of the future?
AUTHOR(S): Phoenix, David A.; Harris, Frederick
CORPORATE SOURCE: Faculty of Science, University of Central Lancashire, Preston, PR1 2HE, UK
SOURCE: Trends in Molecular Medicine (2003), 9(7), 283-285
CODEN: TMMRCY; ISSN: 1471-4914
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
ED Entered STN: 04 Aug 2003
AB A review. Phenothiazinium-based mols. exhibit phototoxicity against a broad range of bacteria. In general, these photosensitizers use several cellular uptake pathways, coupled to type II mechanisms of photo-oxidation, to inflict bacterial damage. These mols. show potential to act as novel alternatives to conventional antibiotics.
CC 8-0 (Radiation Biochemistry)
Section cross-reference(s): 10
IT **261-89-2D**, Phenothiazinium, derivs.
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phenothiazinium-based photosensitizers as antibacterials of future)
IT **261-89-2D**, Phenothiazinium, derivs.
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(phenothiazinium-based photosensitizers as antibacterials of future)
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

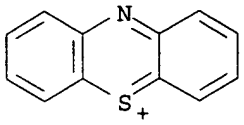
L7 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:927420 CAPLUS
DOCUMENT NUMBER: 138:16590
TITLE: Biologically active methylene blue derivatives
INVENTOR(S): Brown, Stanley Beames; O'Grady, Cassandra Claire; Griffiths, John; Mellish, Kirste Joanne; Tunstall, Richard George; Roberts, David John Howard; Vernon, David Ian
PATENT ASSIGNEE(S): Photopharmica Limited, UK
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002096896	A1	20021205	WO 2002-GB2278	20020530
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
NZ 529682	A	20031219	NZ 2002-529682	20020530
EP 1392666	A1	20040303	EP 2002-726300	20020530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002009783	A	20040420	BR 2002-9783	20020530
JP 2005500271	T2	20050106	JP 2003-500075	20020530
US 2004147508	A1	20040729	US 2003-723420	20031126
PRIORITY APPLN. INFO.:			GB 2001-13121 A	20010530
			GB 2001-23945 A	20011005
			WO 2002-GB2278 W	20020530

OTHER SOURCE(S): MARPAT 138:16590
ED Entered STN: 06 Dec 2002
AB This invention relates to biol. active photosensitizers which are strongly photocytotoxic and have application in the areas of photodynamic therapy, as well as for the diagnosis and detection of medical conditions, in the treatment of microbial infections, in photodisinfection and photosterilization. The examples provided are of methylene blue and its Et, Pr, Bu, pentyl and hexyl analogs. The latter compds. have antimicrobial and antitumor activity. Methylene blue analogs are suitable for inclusion in polymers such as cellulose triacetate, for adsorption on polymer surfaces, and for covalent attachment to polymer substrates. The analogs and derivs. are also suitable for use on medical devices and in food processing.
IC ICM C07D279-18
ICS A61K031-5415; A61P035-00; A61P031-04
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 8, 10, 17
IT **261-89-2D**, Phenothiazinium, derivs.
RL: ADV (Adverse effect, including toxicity); FFD (Food or feed use); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methylene blue derivs. and analogs as photosensitizers in photodynamic

therapy and photodisinfection)
IT **261-89-2D**, Phenothiazinium, derivs.
RL: ADV (Adverse effect, including toxicity); FFD (Food or feed use); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methylene blue derivs. and analogs as photosensitizers in photodynamic therapy and photodisinfection)
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)

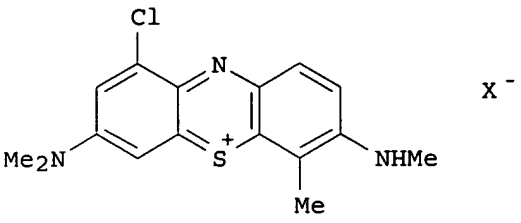


REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:923783 CAPLUS
DOCUMENT NUMBER: 136:37620
TITLE: Diaminophenothiazine derivatives
INVENTOR(S): Galey, Laurent
PATENT ASSIGNEE(S): Fr.
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

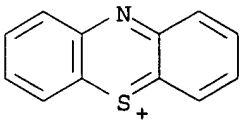
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001096322	A1	20011220	WO 2001-FR1888	20010615
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2810318	A1	20011221	FR 2000-7660	20000615
CA 2410824	AA	20011220	CA 2001-2410824	20010615
EP 1311498	A1	20030521	EP 2001-947506	20010615
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003158204	A1	20030821	US 2002-311005	20021212
PRIORITY APPLN. INFO.:			FR 2000-7660 A	20000615
			WO 2001-FR1888 W	20010615

OTHER SOURCE(S): MARPAT 136:37620
ED Entered STN: 21 Dec 2001
GI



I

AB Title compds. such as I (X- = organic or inorg. anion) were claimed for treatment of a variety of diseases. I are applicable in the biol. and/or chemical field.
IC ICM C07D279-18
ICS A61K031-5415; A61P031-00; A61P033-06
CC 28-14 (Heterocyclic Compounds (More Than One Hetero Atom))
IT **261-89-2DP**, Phenothiazinium, diamino derivs.
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT **261-89-2DP**, Phenothiazinium, diamino derivs.
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:833129 CAPLUS
DOCUMENT NUMBER: 135:362608
TITLE: Polyoxyalkylene block polymers as supports for photosensitizer formulations
INVENTOR(S): Chowdhary, Rubinah Kausar; Dolphin, David H.
PATENT ASSIGNEE(S): The University of British Columbia, Can.
SOURCE: PCT Int. Appl., 102 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085213	A2	20011115	WO 2001-CA667	20010508
WO 2001085213	A3	20020801		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,

RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2408332	AA	20011115	CA 2001-2408332		20010508
US 2002061330	A1	20020523	US 2001-851606		20010508
PRIORITY APPLN. INFO.:			US 2000-202640P	P	20000508
			WO 2001-CA667	W	20010508

ED Entered STN: 16 Nov 2001

AB The invention is generally related to the field of formulating medicaments in association with a solid support. Such formulations of photosensitizers, and their use in photodynamic therapy, are exemplified. Block copolymers such as Poloxamers and Pluronics were screened for photosensitizer drug loading.

IC ICM A61K041-00

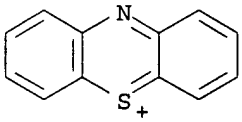
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 8

IT **261-89-2D**, Phenothiazinium, derivs. 574-93-6D, Phthalocyanine, derivs. 2683-78-5D, Bacteriochlorin, derivs. 2683-84-3D, Chlorin, derivs. 23627-89-6D, Naphthalocyanine, derivs. 67883-10-7D, Isobacteriochlorin, derivs. 75775-33-6D, Purpurin, derivs. 100572-96-1D, Porphycene, derivs. 129497-78-5, Verteporfin 189752-49-6D, Texaphyrin, derivs. 215808-49-4, A-EA6
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene block polymers as supports for photosensitizer formulations)

IT **261-89-2D**, Phenothiazinium, derivs.
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene block polymers as supports for photosensitizer formulations)

RN 261-89-2 CAPLUS

CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2001:833128 CAPLUS
DOCUMENT NUMBER:	135:376748
TITLE:	Polyoxyalkylene block copolymers for drug delivery systems for photodynamic therapy
INVENTOR(S):	Chowdhary, Rubinah Kausar; Dolphin, David H.
PATENT ASSIGNEE(S):	The University of British Columbia, Can.
SOURCE:	PCT Int. Appl., 79 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001085212	A2	20011115	WO 2001-CA637	20010508
WO 2001085212	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2408323	AA	20011115	CA 2001-2408323	20010508
US 2002155089	A1	20021024	US 2001-851641	20010508
US 6693093	B2	20040217		
US 2004102430	A1	20040527	US 2003-688090	20031017
PRIORITY APPLN. INFO.:			US 2000-202641P	P 20000508
			US 2001-851641	A1 20010508
			WO 2001-CA637	W 20010508

ED Entered STN: 16 Nov 2001

AB The invention is generally related to the field of photodynamic therapy by use of photosensitizers and stabilized formulations of the photosensitizers. These formulations may be used to deliver a photosensitizer as a pharmaceutical, agricultural, or industrial agent. The photosensitizer containing formulations and compns. of the invention comprise one or more block copolymers. Furthermore, the invention relates to processes for the production of, and application of, said formulations and compns. as photosensitizer drug delivery systems. Block copolymers such as Poloxamers and Pluronics were screened for photosensitizer drug loading.

IC ICM A61K041-00

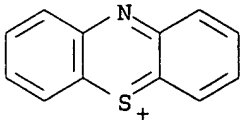
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 5, 8

IT **261-89-2D**, Phenothiazinium, derivs. 574-93-6D, Phthalocyanine, derivs. 2683-78-5D, Bacteriochlorin, derivs. 2683-84-3D, Chlorin, derivs. 2683-94-5D, derivs. 23627-89-6D, Naphthalocyanine, derivs. 24979-97-3, Polytetrahydrofuran 25608-40-6, Poly(aspartic acid) 26063-13-8, Poly(aspartic acid) 67883-10-7D, Isobacteriochlorin, derivs. 75775-33-6D, Purpurin, derivs. 100572-96-1D, Porphycene, derivs. 189752-49-6D, Texaphyrin, derivs. 373391-81-2D, derivs.
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene block copolymers for drug delivery systems for photodynamic therapy)

IT **261-89-2D**, Phenothiazinium, derivs.
RL: MOA (Modifier or additive use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyoxyalkylene block copolymers for drug delivery systems for photodynamic therapy)

RN 261-89-2 CAPLUS

CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:81613 CAPLUS
DOCUMENT NUMBER: 130:152548
TITLE: Method of treating leukocytes, leukocyte compositions and methods of use thereof
INVENTOR(S): Greenman, William M.; Grass, Joshua A.; Talib, Sohel; Stassinopoulos, Adonis; Hei, Derek J.; Hearst, John E.
PATENT ASSIGNEE(S): Cerus Corporation, USA
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

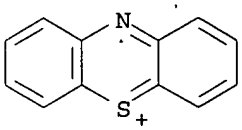
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9903976	A2	19990128	WO 1998-US15067		19980721
WO 9903976	A3	19990527			
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2296366	AA	19990128	CA 1998-2296366		19980721
EP 1005531	A2	20000607	EP 1998-936943		19980721
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
AU 748074	B2	20020530	AU 1998-85776		19980721
AU 9885776	A1	19990210			
JP 2003520563	T2	20030708	JP 2000-503182		19980721
PRIORITY APPLN. INFO.:			US 1997-53599P	P	19970721
			US 1998-119707	A	19980720
			WO 1998-US15067	W	19980721

ED Entered STN: 08 Feb 1999
AB The invention provides methods and compns. for treating leukocytes to arrest proliferation of the leukocytes and render them ineffective in eliciting graft-vs.-host disease (GVHD), but effective to enhance engraftment of allogeneic donor cells and promote destruction of diseased cells or pathogens. The diseased cells are cancerous or virus-infected cells. Leukocyte compns. and methods of use of these compns. in alleviating disease, facilitating various types of immune reconstitution and immunotherapy, and enhancing engraftment of allogeneic donor cells, are also provided. These proliferation-inhibited leukocytes for use in transfusion are prepared by treating with replication inhibiting compound selecting from β-alanine,N-(acridin-9-yl),2-[bis(2-chloroethyl)amino]ethyl ester and analogs, topoisomerase inhibitors, camptothecin, daunomycin, furocumarins, actinomycins, psoralens, etc. Thus, β-alanine,N-(2-carbomethoxyacridin-9-yl),2-[bis(2-chloroethyl)amino]ethyl ester dihycrochloride and other analogs were prepared and used.
IC ICM C12N005-00
CC 15-1 (Immunochemistry)
Section cross-reference(s): 8
IT 66-97-7D, Psoralen, amino analogs 66-97-7D, Furocoumarin, analogs 86-73-7D, Fluorene, analogs 91-22-5D, Quinoline, analogs, biological

studies 92-82-0D, Phenazine, analogs 92-84-2D, Phenothiazine, analogs 147-14-8D, analogs 229-87-8D, Phenanthridine, analogs 260-94-6D, Acridine, analogs **261-89-2D**, Phenazathionium, salts 298-81-7, 8-Methoxy psoralen 484-20-8, 5-Methoxy psoralen 486-25-9D, Fluorenone, analogs 492-22-8D, Thiaxanthenone, analogs 519-23-3D, Ellipticine, analogs 622-37-7D, Phenylazide, analogs 1402-38-6D, Actinomycin, analogs 3902-71-4, 4,5';8-Trimethylpsoralen 4803-27-4D, Anthramycin, analogs 7689-03-4, Camptothecin 20830-81-3, Daunomycin 64358-50-5, 4'-Aminomethyl-4,5',8-trimethylpsoralen 148937-53-5, Norphilin A 161262-29-9
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of proliferation-inhibited leukocytes with replication-inhibiting compound or topoisomerase inhibitor for destructing cancerous or infected cells and pathogens)

IT **261-89-2D**, Phenazathionium, salts
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of proliferation-inhibited leukocytes with replication-inhibiting compound or topoisomerase inhibitor for destructing cancerous or infected cells and pathogens)

RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)

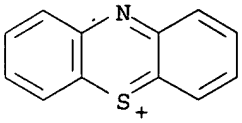


L7 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:101242 CAPLUS
DOCUMENT NUMBER: 120:101242
TITLE: Redox polymer-modified enzyme electrode for the electrochemical regeneration of coenzyme
INVENTOR(S): Skotheim, Terje; Okamoto, Yoshiyuki; Gorton, Lo G.; Lee, Hung Sui; Hale, Paul
PATENT ASSIGNEE(S): Moltech Corp., USA
SOURCE: U.S., 18 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5264092	A	19931123	US 1991-770310	19911002
PRIORITY APPLN. INFO.:			US 1991-770310	19911002

ED Entered STN: 05 Mar 1994
AB An electrochem. enzyme biosensor is disclosed for use in liquid mixts. of components for detecting or determining ≥1 selected components. The enzyme electrode of the invention includes a redox polymer immobilized on an electrode surface, ≥1 enzymes, ≥1 of which is a dehydrogenase, a coenzyme, and an electron collector. An alc. dehydrogenase/NAD+/Meldola Blue-polysiloxane/carbon paste electrode is described.
IC ICM G01N027-00
NCL 204153120

CC 9-1 (Biochemical Methods)
IT 92-31-9D, Toluidine blue O, complex with polyalkanes 92-82-0D, Phenazine, derivs, polymer reaction products 261-79-0D, Phenoxazin-5-ium, polymer reaction products **261-89-2D**, Phenothiazin-5-ium, polymer reaction products 581-30-6D, Phenothiazin-3-one, derivs., polymer reaction products 1916-63-8D, Phenoxazone, derivs., polymer reaction products 7057-57-0D, Meldola blue, complex with siloxanes 9002-98-6D, Poly(ethyleneimine), reaction products with redox mediators 25322-68-3D, Poly(ethylene oxide), reaction products with redox mediators 84756-60-5D, 2(10H)-Phenazinone, derivs., polymer reaction products
RL: DEV (Device component use); USES (Uses)
(for enzyme electrode, coenzyme regeneration in relation to)
IT **261-89-2D**, Phenothiazin-5-ium, polymer reaction products
RL: DEV (Device component use); USES (Uses)
(for enzyme electrode, coenzyme regeneration in relation to)
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)

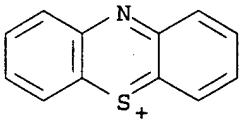


L7 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:148766 CAPLUS
DOCUMENT NUMBER: 112:148766
TITLE: Electron spin resonance and electron spin echo modulation spectroscopic studies of the photoionization of phenothiazine derivatives in alkyl sulfate and alkyltrimethylammonium bromide micellar solutions
AUTHOR(S): Baglioni, Piero; Hu, Ming; Kevan, Larry
CORPORATE SOURCE: Dep. Chem., Univ. Houston, Houston, TX, 77204-5641, USA
SOURCE: Journal of Physical Chemistry (1990), 94(6), 2586-90
CODEN: JPCHAX; ISSN: 0022-3654
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 13 Apr 1990
AB Electron spin echo modulation and ESR of photoionized ω-phenothiazin-9-ylalkanesulfonate (alkyl = C3H7, C6H13, C12H25), 9-alkylphenothiazinesulfonate (alkyl = CH3, C12H25), and methylphenothiazine were studied as a function of the surfactant alkyl chain length of sodium alkyl sulfate and alkyltrimethylammonium bromide micellar solns. in D2O, with alkyl = decyl, dodecyl, and tetradecyl. Deuterium modulation effects from x-doxylstearic acid interactions with water deuteriums indicate that only the decyl surfactants form micelles with significant water penetration at the micellar interface. The efficiency of charge separation upon phenothiazine photoionization mainly depends on the strength of the phenothiazine cation-water interactions which is partially controlled by the phenothiazine and surfactant alkyl chain lengths, suggesting that a particular location of the phenothiazine group near the micellar interface is required to optimize the photoefficiency for charge separation
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **261-89-2DP**, Phenothiazin-5-ium, alkyl derivs.
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in photoionization of phenothiazine derivs. in micellar solns.)

IT **261-89-2DP**, Phenothiazin-5-ium, alkyl derivs.
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in photoionization of phenothiazine derivs. in micellar solns.)

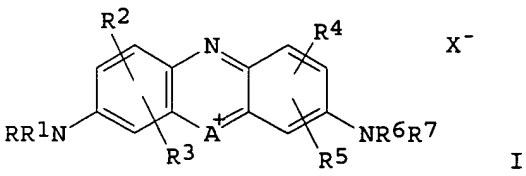
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1985:427355 CAPLUS
DOCUMENT NUMBER: 103:27355
TITLE: Sanitizing toilets
INVENTOR(S): Hung, William Mo Wei; Knox, Jack Michael
PATENT ASSIGNEE(S): Hilton-Davis Chemical Co., USA
SOURCE: Eur. Pat. Appl., 45 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
EP 128414	A2	19841219	EP 1984-105838		19840522
EP 128414	A3	19860910			
R: DE, FR, GB					
JP 60005157	A2	19850111	JP 1984-112880		19840601
PRIORITY APPLN. INFO.:			US 1983-501466	A	19830606
			US 1983-550662	A	19831110

ED Entered STN: 27 Jul 1985
GI

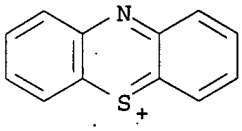


I

AB Automatic sanitizing of flush toilets comprises dispensing a water soluble phenothiazinium or phenoxazinium dyestuff I (R = R1 = R6 = R7 = H, halogen, alkyl, benzyl, etc.; R2 = R5 = H, OH, alkyl, etc.; R3 = R4 = H, SO3M; M = metal cation; A = O, S; X = anion) and a sanitizing agent such as a hypochlorite into the bowl with each flush. I is resistant to attack by the sanitizing agent and thus provides color to the bowl water during

the time period that the water remains in the bowl between flushes. Thus, FD & C Blue Number 1 [3844-45-9] and NaOCl were combined and a visible spectrum taken at 0-304 min. The effectiveness of the composition was also demonstrated.

IC E03D009-02
ICA C09B019-00; C09B021-00
CC 63-8 (Pharmaceuticals)
IT 261-79-0D, derivs. **261-89-2D**, derivs. 2353-45-9 3844-45-9 33203-82-6 97068-16-1 97068-17-2 97068-18-3
RL: BIOL (Biological study)
(toilet flush water containing sanitizing agent and)
IT **261-89-2D**, derivs.
RL: BIOL (Biological study)
(toilet flush water containing sanitizing agent and)
RN 261-89-2 CAPLUS
CN Phenothiazin-5-ium (8CI, 9CI) (CA INDEX NAME)



=>

=> fil wpids
FILE 'WPIDS' ENTERED AT 13:16:07 ON 07 MAR 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE LAST UPDATED: 3 MAR 2005 <20050303/UP>
MOST RECENT DERWENT UPDATE: 200515 <200515/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE, PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES, SEE http://thomsonderwent.com/coverage/latestupdates/ <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER GUIDES, PLEASE VISIT:
http://thomsonderwent.com/support/userguides/ <<<

>>> NEW! FAST-ALERTING ACCESS TO NEWLY-PUBLISHED PATENT DOCUMENTATION NOW AVAILABLE IN DERWENT WORLD PATENTS INDEX FIRST VIEW - FILE WPIFV.
FOR FURTHER DETAILS: http://www.thomsonderwent.com/dwpifv <<<

>>> NEW DISPLAY FORMAT HITSTR ADDED ALLOWING DISPLAY OF HIT STRUCTURES WITHIN THE BIBLIOGRAPHIC DOCUMENT <<<

>>> SMILES and ISOSMILES strings are no longer available as Derwent Chemistry Resource display fields <<<

>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.

PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
FOR DETAILS. <<<

```
=> d que l11
L8          1848 SEA FILE=WPIDS ABB=ON  PLU=ON  METHYLENE BLUE OR PHENOTHIAZINIU
                 M
L9           185 SEA FILE=WPIDS ABB=ON  PLU=ON  L8 (S) DERIV?
L10          775 SEA FILE=WPIDS ABB=ON  PLU=ON  DIPROPYLAMIN? OR DI(3A)
                 PROPYL(3A) AMIN###
L11            0 SEA FILE=WPIDS ABB=ON  PLU=ON  L9 AND L10


=> d que l15
L8          1848 SEA FILE=WPIDS ABB=ON  PLU=ON  METHYLENE BLUE OR PHENOTHIAZINIU
                 M
L9           185 SEA FILE=WPIDS ABB=ON  PLU=ON  L8 (S) DERIV?
L14            2 SEA FILE=WPIDS ABB=ON  PLU=ON  DINITROPHENOTHIAZIN?
L15            0 SEA FILE=WPIDS ABB=ON  PLU=ON  L9 AND L14


=> d que l17
L8          1848 SEA FILE=WPIDS ABB=ON  PLU=ON  METHYLENE BLUE OR PHENOTHIAZINIU
                 M
L10          775 SEA FILE=WPIDS ABB=ON  PLU=ON  DIPROPYLAMIN? OR DI(3A)
                 PROPYL(3A) AMIN###
L17            1 SEA FILE=WPIDS ABB=ON  PLU=ON  L8 AND L10


=> d .wp l17

L17  ANSWER 1 OF 1  WPIDS  COPYRIGHT 2005 THE THOMSON CORP on STN
AN   1981-75492D [41]   WPIDS
TI   Stabilised Romanowsky stain solution - contains ammonium halide or prim.,
     sec. or tert. alkylamine hydrohalide as stabiliser.
DC   B04
IN   LIAO, J C; PATEL, P; PONZO, J L
PA   (MILE) MILES LAB INC
CYC  19
PI   US 4290769      A  19810922 (198141)*       3
     EP 49833        A  19820421 (198217)  EN
         R: AT BE CH DE FR GB IT LI LU NL SE
     NO 8103333      A  19820510 (198222)
     DK 8104544      A  19820601 (198225)
     FI 8103157      A  19820531 (198225)
     JP 57094052     A  19820611 (198229)
     ZA 8104884      A  19820930 (198251)
     CA 1156541      A  19831108 (198349)
     EP 49833        B  19850116 (198504)  EN
         R: AT BE CH DE FR GB IT LI LU NL SE
     IL 63177        A  19841031 (198506)
     DE 3168348      G  19850228 (198510)
     JP 63045542     B  19880909 (198840)
ADT  EP 49833 A EP 1981-107851 19811002; JP 57094052 A JP 1981-160384 19811009
PRAI US 1980-196365       19801014
AB   US   4290769 A UPAB: 19960405
     Stain containing azures, Methylene Blue and an eosin dye
     in a methanol solution is stabilised by (1) an ammoniumhalide and/or (2) a
     mono-, di- or tri-(1-6C alkyl) amine hydrohalide (I). The halide is
     chloride, bromide or iodide. Pref. the stabiliser is present in amount
```

0.1-1.2 weight% of solution The stabiliser is pref. (I), especially diethylamine,
dipropylamine, dibutylamine tripropylamine or tributylamine hydrohalide (especially the hydrochloride). Typically the stain to be stabilised is Wright's or Giesma's solns. Pref. the stabiliser is diethylamine hydrochloride (Ia) used in amount 0.6 weight% of the solution The stain is useful for staining blood systems. The compsn. provides good stain performance, is highly soluble and is effective in reducing component changes. The precipitation problems associated with conventional stains
are eliminated, and the stabilised stain has a shelf life of 2.5-3 yrs.

=>